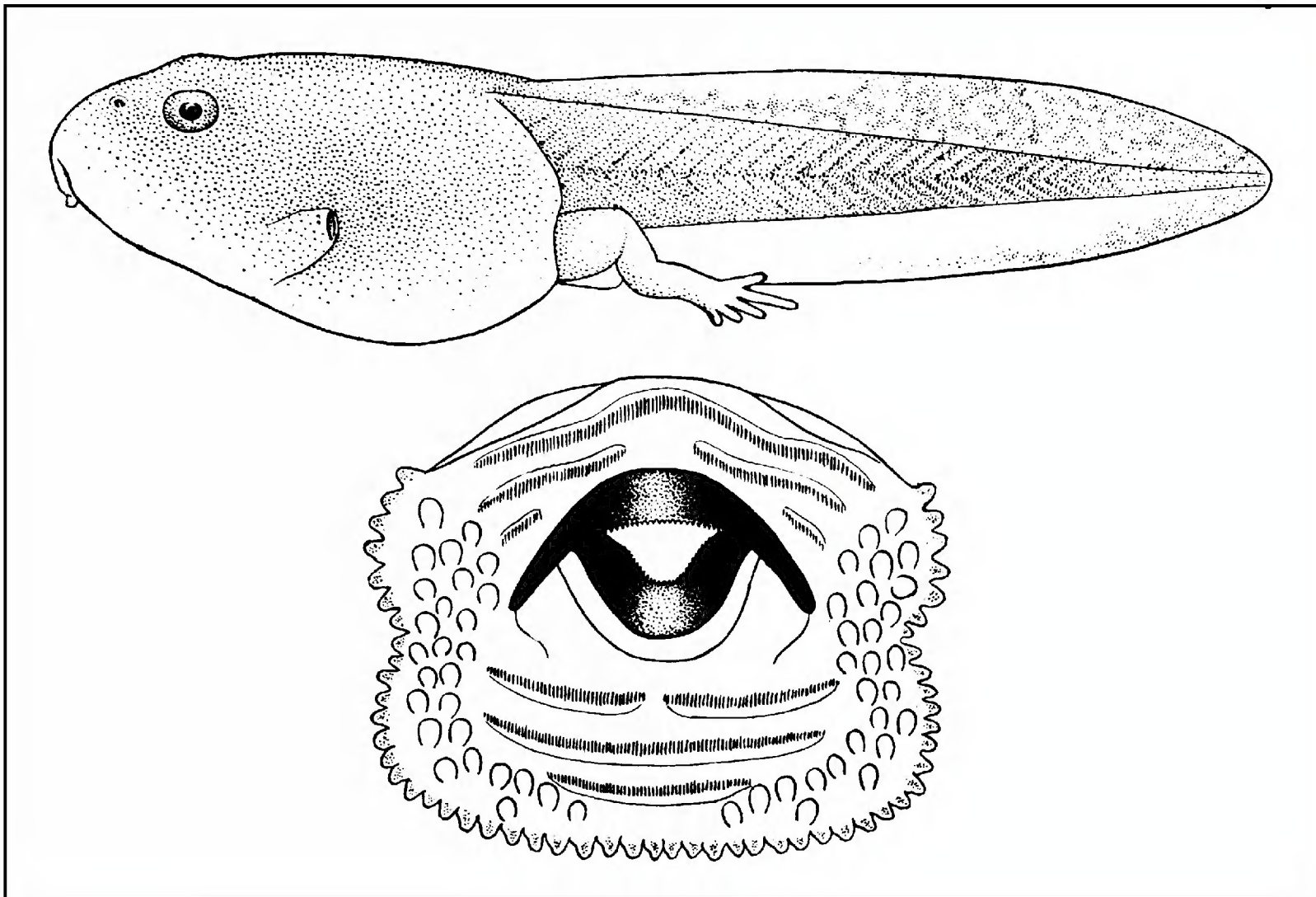

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BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY

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Notes on Mexican Herpetofauna 15: The Risk of Invasive Species in Northeastern Mexico

David Lazcano¹, Robert Mendoza-Alfaro¹, Lizeth Campos-Múzquiz², Pablo A. Lavin-Murcio³
and Miroslava Quiñónez-Martínez³

Resumen

Las poblaciones de anfibios y reptiles en numerosos ecosistemas Mexicanos están actualmente en un estado alto de deterioro. Hay varias razones para explicar esta disminución dramática. Pero una que ha recibido poca atención por parte de los científicos nacionales y esta pobremente documentada es la introducción de especies exóticas (particularmente aquellas que toleran los cambios constantes). Muchas de ellas son explotadas con fines comerciales (comida, ornamentación, investigación ect). En años recientes se ha incrementado el comercio de mascotas en México, fuera de la capital, expandiéndose a todas las ciudades grandes del país. Cualquier especie vendida como mascota es una fuerte candidata en convertirse en una especie invasiva potencial en áreas que son ecológicamente similares. En la actualidad no existe un estudio extensivo sobre anfibios y reptiles invasivos en México, con excepción del estudio con *Lithobates catesbeianus* (American bullfrog) introducido para su explotación alimentaría. Este anfibio escapo de sus instalaciones de crianza y se establecían en forma silvestre, ahora compitiendo con otros anfibios por recursos. CONABIO (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, 2009) menciona en una de sus publicaciones (Capital Natural de México) la escasa información existente sobre especies exóticas en México, donde se evidencia un gran vacío de información en este mercado que se ha venido expandiendo en años recientes y su posible efecto sobre las especies nativas. Es importante incrementar la documentación sobre la venta de mascotas y sus posibles consecuencias sobre las especies nativas, si estas fueran liberadas en el medio natural.

Currently, populations of amphibians and reptiles are greatly deteriorating in numerous Mexican ecosystems. There are several reasons for this. However, one reason that has received little attention by national scientists and is poorly documented is the introduction of exotic species (particularly those that tolerate changing conditions). Many such exotics are exploited for commercial purposes (food, ornament, research, etc.) and they are strong candidates to become invasive species. This potential has been recognized as one of the biggest threats to species diversity (Kenward and Holm, 1993; Mooney and Cleland, 2001; Stohlgren and Schnase, 2006; Wilcove et al., 1998).

A related problem is that species commensal with humans, such as dogs, cats, rats and mice, can be important predators of invertebrates, amphibians, reptiles, mammals, small birds and their eggs (Jaksic, 1998; Mellink, 1992). It is inevitable that suburban ecosystems or human-dominated environments experience a reduction or even disappearance of herpetofauna in the presence of domestic cats, both house pets and those that have gone feral. These felids are extremely effective predators, especially on lizards, so when they are present in a rural area, eventually there will be a loss of herpetological diversity.

Exotic vertebrates can have a major impact on natural or semi-natural ecosystems through competition for resources and through the introduction of diseases and parasites. In exceptional conditions exotic species can bear zoonoses transmissible

to humans (Domínguez-Torres and Mellink, 2003; Jaksic, 1998; Johnson and Klemens, 2005).

A very well documented example of the impact caused by an invasive reptile species is the case of the brown treesnake, *Boiga irregularis*, which was introduced into the Pacific Island of Guam, negatively affecting native species by reducing the density of bats and causing the extinction of many species of lizards and birds (Rodda and Fritts, 1992; Rodda and Savidge, 2007; Rodda and Tyrrell, 2008; Rodda et al., 1997; Rodda, McCoid et al., 1999; Rodda, Sawai et al., 1999) and its presence has damaged human infrastructure (Pimentel, 2002, 2005).

In recent years there has been an increase in the trade of reptiles as pets in Mexico. Almost any exotic species sold as a pet is a strong candidate to become an invasive species in areas that are the ecological equivalent of their homeland. Many of the animals imported into Mexico for the pet trade have their origin in Florida (Meshaka, 2004; Meshaka et al., 2004; Powell and Henderson, 2008), where some are already established as invasive species and appear to be actively expanding their ranges.

Some species now commonly sold as pets in Mexico include: tokay geckos, *Gekko gecko*; leopard geckos *Eublepharis macularius*; Afro-American house geckos, *Hemidactylus mabouia*; common house geckos, *H. frenatus*; monitor lizards like savannah monitors, *Varanus exanthematicus*, and Nile monitors, *V.*

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niloticus; pythons like Children's python, *Antaresia childreni*, Indian pythons, *Python molurus*, and reticulated pythons, *P. reticulatus*; land tortoises like Indian star tortoises, *Geochelone elegans* and Mediterranean spur-thighed tortoises, *Testudo graeca*; and red-eared sliders, *Trachemys scripta*. Many of the above have proven to be aggressive invasive species in other countries and are now also commercialized in Mexico's larger cities (a list of the most popular amphibian and reptile pets sold in the Monterrey metropolitan area is included).

Due to the great diversity of habitats in Mexico, there is an extremely high risk for many of these species to become invasive and establish themselves in particularly sensitive areas. Unfortunately there has been little documentation on any taxa that might have escaped into the wild, except for a few examples mentioned below.

The only extensive study to date on amphibians or reptiles as invasive species in Mexico has been on the American bullfrog, *Lithobates catesbeianus*, introduced for food exploitation. This amphibian escaped from cultivation installations and spread to establish in the wild, where it now competes with other amphibians for available resources. It even preys on gartersnakes and watersnakes, which are natural predators of amphibians and other vertebrates (Casas-Andreu and Aguilar-Miguel 1997a, b; Casas-Andreu et al., 2001). The bullfrog's impact on wild populations has previously been documented by others (e.g., Rosen and Schwalbe, 1995).

The common house gecko, *Hemidactylus frenatus*, was introduced accidentally and has colonized urban areas (Schmidt et al., 1996). The Afro-American house gecko, *H. mabouia*, was presumably introduced by the same route. These lizards compete with the Mediterranean gecko, *H. turcicus*, which was introduced into Mexico long ago, and has shown a great capacity for dispersion in tropical and subtropical areas, including the cities. It is now common, for instance, to hear the nighttime vocalizations of this species in the Monterrey metropolitan area. Local residents are aware of them and seem to tolerate them, but as yet their impact on the local biota is undocumented.

Some introduced reptile species have been expanding their range in Mexico without attracting much attention. Such is the case for the Asian parthenogenic blind snake, *Ramphotyphlops braminus*. This exotic species has an extensive distribution because of its accidental dispersion along with ornamental plants coming from Asia to the United States and then to Mexico. Mostly this snake remains unnoticed; we don't know the impact it has had on the country's biota. Its presence in Mexico was formally reported by Guzmán and Muñoz-Martínez (1999).

Another specific example of an invasive species in Mexico was documented by Martínez-Morales and Cuarón (1999) where they mention the decline of several endemic bird and mammal populations endemic to the island of Cozumel, due to the introduction of the common boa, *Boa constrictor*. This species is an inhabitant of Mexican mainland, which is only 50 km away.

The common cornsnake, *Pantherophis guttata*, which does not inhabit Mexico, is widely sold in pet shops. Released specimens could hybridize with the native ratsnake, *P. emoryi*, impacting genetic stability.

On the other hand, the expansion of commercialization has been slowing down due to prices of pets in Mexico (legal or illegal). In many cases the prices are double or triple the prices for the same pets sold in the United States.

In summary, given the limited information about introduced species in Mexico, their ecological, economic and social consequences are unknown. The current role of biologists in this regard is limited to inventories, identification of new species, analysis of ecosystems and in a very small measure the biology of native species. It is necessary to continue working intensively in these areas, but also to implement early detection, preventive measures, and methods for elimination of potential invasive species.

A problem sometimes faced by researchers who identify an exotic or invasive species, lies in the application of federal law Norma Oficial Mexicana NOM-059-ECOL-2001, that established certain status categories for Mexican species, such as threatened or endangered (Anonymous, 2001). Some species categorized as endangered or protected in one region of Mexico may well be exotic and potentially invasive in another part of the country. Due to this law researchers may be unable to perform effective control or elimination of any such invasive species, which can cause irreversible damage to local communities. On the other hand, there are some particular examples, as in the case of the common boa in Cozumel Island, where the interpretation of the law is still problematic.

CONABIO (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad) mentions the scarcity of information on exotic species in Mexico in one of its publications (CONABIO, 2009). This only emphasizes the great void of information on the expansion of the animal trade in recent years and its possible effect on native species. It is essential to document all introduced species, adding to CONABIO data bases (<http://www.conabio.gob.mx/invasoras>) to address the problem and thus ensure that our native endemic species are not affected.

Finally, it is important to clarify that we are not against responsible dealers of exotic amphibians and reptiles (Rodda and Tyrrell, 2008) in Mexico, but for those dealers and buyers that perform illegal practices that could harm Mexican herpetofauna. There has to be stronger law enforcement.

We are aware that enthusiastic amateur herpetologists around the world have contributed to our understanding of the biology of hundreds of species, we understand that it is human nature, being close to nature, even though it's a tiny piece in your home, many of us begin our interest in amphibians and reptiles this way, but we should also be aware that there will come a day when importation of wildlife from developing countries will come to a halt and we will only be able to satisfy our desire to have these extraordinary creatures in our homes or research facilities through the efforts of talented breeders.

There are perhaps tons of documented articles and books on extreme exploitation of our natural resources all over the world, but if we are to enjoy nature as such; we need to implement strong policies of protection of our last wild ecosystems in every corner of the planet, for future generations stop habitat alteration that will continue fragmenting healthy ecosystems, look a

climate change its here to stay without forgetting the impact that invasive species (plants and animals) have caused around the world.

Mega extinction is galloping faster then we thought, and further loss of biological diversity in the world seems inevitable.

Acknowledgments

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Comisión Nacional Para el Estudio de la Biodiversidad (CONABIO), Consejo Nacional de Ciencia y Tecnología (CONACYT), Grupo de Laboratorio Silanes, Houston Zoo, San Antonio Zoo, San Diego Zoo, Los Angeles Zoo and the San Angelo Nature Center for their support throughout the years. And we thank the SEMARNAT office for issuing the various collecting permits for our research.

Exotic amphibian and reptile species commonly sold in local pet shops in the metropolitan area of Monterrey, Mexico.

Scientific name	Common name in English	Common name in Spanish
<i>Agalychnis callidryas</i>	Red-eyed treefrog	Rana de ojos rojos
<i>Alligator mississippiensis</i>	American alligator	Caimán
<i>Antaresia childreni</i>	Children’s python	Pitón niño
<i>Antaresia maculosa</i>	Spotted python	Pitón manchado Australiano
<i>Apalone ferox</i>	Florida softshell	Tortuga de concha blanda de Florida
<i>Basiliscus vittatus</i>	Striped basilisk	Lagartija Cristo
<i>Boa constrictor</i>	Boa constrictor	Boa constrictora
<i>Ceratophrys ornata</i>	Ornate horned frog	Rana Pacman
<i>Chamaeleo calyptratus</i>	Veiled chameleon	Camaleón de velo
<i>Chamaeleo jacksonii</i>	Jackson’s chameleon	Camaleón Jackson
<i>Chamaeleo senegalensis</i>	Senegal chameleon	Camaleón de Senegal
<i>Chelydra serpentina</i>	Snapping turtle	Tortuga mordedora
<i>Chlamydosaurus kingii</i>	Frilled dragon, frilled lizard	Clamidosauro
<i>Corallus caninus</i>	Emerald tree boa	Boa esmeralda
<i>Crocodylus moreletii</i>	Morelet’s crocodile	Cocodrilo de pantano
<i>Epicrates cenchria</i>	Rainbow boa	Boa arcoiris
<i>Eryx colubrinus</i>	Kenyan sand boa	Boa de arena Keniana
<i>Eublepharis macularius</i>	Leopard gecko	Gecko leopardo
<i>Eunectes murinus</i>	Green anaconda	Anaconda verde
<i>Eunectes notaeus</i>	Yellow anaconda	Anaconda amarilla
<i>Furcifer pardalis</i>	Panther chameleon	Camaleón pantera
<i>Gekko gekko</i>	Tokay gecko	Gecko tokay
<i>Geochelone carbonaria</i>	Red-footed tortoise	Tortuga de patas
<i>Geochelone denticulata</i>	Yellow-footed tortoise	Tortuga de patas
<i>Geochelone elegans</i>	Indian star tortoise	Tortuga estrella de la India
<i>Geochelone sulcata</i>	African spurred tortoise	Tortuga leopardo
<i>Hemidactylus frenatus</i>	Common house gecko	Gecko casero común
<i>Hemidactylus mabouia</i>	Afro-American house gecko	Gecko casero tropical
<i>Hemitheconyx caudicinctus</i>	Fat-tailed gecko	Gecko de cola gorda
<i>Iguana iguana</i>	Green iguana	Iguana verde
<i>Lampropeltis getula</i>	Common kingsnake	Serpiente rey
<i>Lampropeltis pyromelana</i>	Sonoran mountain kingsnake	Falsa coralillo
<i>Lampropeltis triangulum</i>	Milksnake	Falsa coralillo
<i>Lamprophis fuliginosus</i>	Olive house snake	Serpiente de casa Africana
<i>Lichanura trivirgata</i>	Rosy boa	Boa de arena Mexicana
<i>Morelia spilota</i>	Carpet and diamond pythons	Pitón carpeta
<i>Morelia viridis</i>	Green tree python	Pitón verde arbóreo
<i>Paleosuchus palpebrosus</i>	Cuvier’s dwarf caiman, Cuvier’s smooth-fronted caiman	Caimán enano
<i>Pantherophis emoryi</i>	Great Plains rat snake	Serpiente ratonera o maicera
<i>Pantherophis guttata</i>	Corn snake	Serpiente ratonera Texana o maicera
<i>Physignathus cocincinus</i>	Chinese water dragon	Dragón de agua
<i>Pogona vitticeps</i>	Central bearded dragon, inland bearded dragon	Dragón barbado
<i>Ptychozoon kuhli</i>	Flying gecko	Gecko volador
<i>Python curtus</i>	Blood python, short-tailed python	Pitón Sangre
<i>Python molurus bivittatus</i>	Burmese python	Pitón Burmese
<i>Python regius</i>	Ball python, royal python	Pitón bola

Scientific name	Common name in English	Common name in Spanish
<i>Python reticulatus</i>	Reticulated python	Pitón reticulado
<i>Python sebae</i>	African rock python	Pitón de las rocas
<i>Rhacodactylus ciliatus</i>	Crested gecko.	Gecko crestado
<i>Testudo graeca</i>	Mediterranean spur-thighed tortoise	Tortuga Griega
<i>Tiliqua scincoides</i>	Eastern blue-tongued skink	Skink de lengua azul
<i>Trachemys scripta elegans</i>	Red-eared slider	Tortuga de orejas rojas
<i>Tupinambis merianae</i>	Argentine black and white tegu	Tegu gigante Argentino
<i>Uroplatus fimbriatus</i>	Madagascan leaf-tailed gecko	Gecko cola de hoja
<i>Varanus acanthurus</i>	Ridge-tailed monitor, spiny-tailed monitor	Varano de cola espinosa
<i>Varanus albigularis</i>	White-throated monitor	Varano de garganta negra
<i>Varanus exanthematicus</i>	Savannah monitor	Varano de la sabana
<i>Varanus mertensi</i>	Mertens's water monitor	Varano arbóreo
<i>Varanus niloticus</i>	Nile monitor	Varano Africano
<i>Varanus ornatus</i>	Ornate monitor	Varano ornamentado
<i>Varanus panoptes</i>	Yellow-spotted monitor	Varano de argus
<i>Varanus salvator</i>	Water monitor	Varano de agua
<i>Varanus timorensis</i>	Timor monitor	Varano de Timor

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Note on Reproduction of the Antilles Leaf-toed Gecko, *Hemidactylus palaichthus* (Squamata: Gekkonidae) from Brazil and Venezuela

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Abstract

Histological examination of *Hemidactylus palaichthus* gonads from Brazil and Venezuela revealed sperm formation occurred in both June–July (Brazil) and October–November (Venezuela). The smallest reproductively active lizards measured 47 mm for males and 53 mm SVL for females. Clutch size for three females consisted of two eggs each. The presence of oviductal eggs and concomitant yolk deposition for a subsequent clutch indicates *H. palaichthus* produces multiple clutches in the same reproductive season. The lack of reproductive activity in *H. palaichthus* females from Venezuela may suggest some seasonality in the ovarian cycle.

Hemidactylus palaichthus is known from northern Brazil, coastal Suriname, Guyana, central and northeastern Venezuela and the islands of Trinidad and St. Lucia (Avila-Pires, 1995). Information on *H. palaichthus* is limited (Rojas-Runjaic et al., 2009). The purpose of this note is to add information on the reproductive biology of *H. palaichthus* from a histological examination of museum specimens.

A total of 34 *H. palaichthus*, 13 from Roraima State, Brazil from the herpetology collection of the Oklahoma Museum of Natural History (OMNH), Norman Oklahoma, collected June–July 1993, and 21 from Apure State, Venezuela, from the Texas Wildlife Cooperative Collection, Texas A&M University (TCWC), College Station, Texas, collected October–November 1973 were examined. These were, Brazil: OMNH 36297–36309; Venezuela: TCWC 44765–444781, 44784, 46021–46023. The Brazil sample consisted of 5 males, mean SVL = 55.6 mm $\pm$ 9.0 SD, range = 41–64 mm and 8 females, mean SVL = 48.8 mm $\pm$ 9.0 SD, range = 39–63 mm. The Venezuela sample consisted of 9 males, mean SVL = 55.6 mm $\pm$ 7.1 SD, range = 47–67 mm and 12 females, mean SVL = 54.5 mm $\pm$ 5.3 SD, range = 47–65 mm.

Gonads were dehydrated in ethanol, embedded in paraffin, sectioned at 5 μ m and stained with Harris hematoxylin followed by eosin counterstain (Presnell and Schreibman, 1997). Testis slides were examined to identify the stage of the testicular cycle. Ovary slides were examined for the presence of early yolk deposition or corpora lutea. Histology slides were deposited in OMNH and TCWC.

Two stages in the testicular cycle were observed: (1) recrudescence in which there is a proliferation of spermatogenic cells in the seminiferous tubules in preparation for the next period of sperm formation, and (2) spermiogenesis in which the lumina of the seminiferous tubules are lined by sperm or packets of metamorphosing spermatids. In Brazil during June–July, 4/5 (80%) males were undergoing spermiogenesis. One male which

measured 41 mm SVL (OMNH 36307) exhibited recrudescence and was considered a juvenile. The smallest spermiogenic male from Brazil measured 55 mm SVL (OMNH 36300). In Venezuela, all males from October–November were undergoing spermiogenesis. The smallest spermiogenic male from Venezuela measured 47 mm SVL (TCWC 44776).

Clutch sizes for three females from Brazil consisted of two eggs each. Clutch sizes of two are typical for many gekkonid lizards (Vitt, 1986). The smallest reproductively active female measured 53 mm SVL (OMNH 36301) and was collected in July. The presence of oviductal eggs and concomitant yolk deposition for a subsequent clutch in OMNH (36301) is evidence that *H. palaichthus* may produce more than one clutch in the same year. The statement that *H. palaichthus* may produce as many as 20 clutches annually (Rojas-Runjaic et al., 2009) requires verification. Four other females, (SVLs 48, 47, 41, 41, 39 mm) were reproductively inactive (no yolk deposition) and were likely juveniles. No females from Venezuela were reproductively active. Nine of them were larger (mean SVL = 56.8 mm $\pm$ 3.8 SD, range = 53–65 mm) than the smallest reproductively active female from Brazil. Communal nesting has been reported for *H. palaichthus* (Rojas-Runjaic et al., 2009).

The presence of spermiogenic males from both June–July and October–November indicates a prolonged period of sperm production for *H. palaichthus*. The lack of reproductive activity in adult Venezuelan females from October–November may indicate some seasonality in the ovarian cycle. Subsequent examination of larger samples from different months will be required to further elucidate the reproductive cycle of *H. palaichthus*.

Acknowledgment

I thank Laurie J. Vitt (OMNH) and Lee Fitzgerald and Toby Hibbitts (TCWC) for permission to examine *H. palaichthus* under their care.

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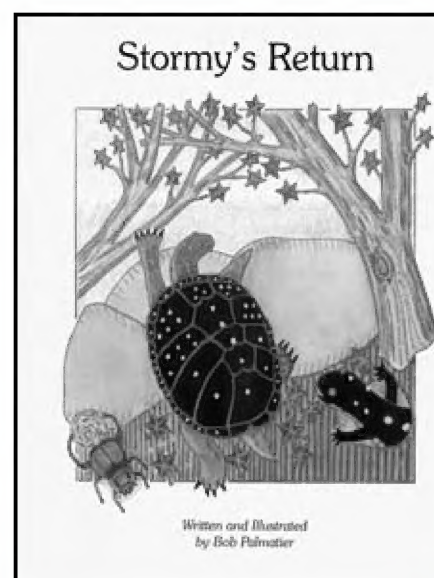
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Book Review: *Stormy's Return* by Bob Palmatier
2008. 94 pp., 33 colored plates. Mittenails Press, Durham, North Carolina
ISBN-13: 978-0-615-23387-1. Softcover. \$19.99 www.bobpalmatier.com
[Children's book, grade school level]

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"We called him tortoise because he taught us." Lewis Carroll, 1865

The story line is simple. A spotted turtle finds his way home after being relocated to another wetland by a well intended naturalist. Stormy meets some interesting creatures in his travels and is reunited with his former pond mates. The end. Okay, I gave away the plot. There is no romance, violence, celebrity news, unexpected twist, or even a villain. Why would anyone read this? Well this is one reason we write and read book reviews.



You will be taken by the illustrations. The 33 paintings in this children's book are so simple and straightforward they are eye-catching and compelling. I purchased several as prints to decorate my cluttered office. Colorful, far from precise, two-dimensional, and not particularly detailed, they are rich and filled with life. Colorful happy sketches, landscapes populated with familiar wetland plants and animals, species portraits that are simultaneously surreal and stylized, yet can easily be recognized. Pink-bellied amphiumas, and yellow-bellied bluegills, living in their natural settings with cattails, chickadees, mud turtles, red admiral butterflies, tumblebugs and sweet gums. Want to know more about these plants and animals? In the back of the book a 12-page illustrated glossary provides a brief paragraph about each.

And here is the best part; it's a true story based on an earlier experience of the author. Oh all right, real spotted turtles probably don't sit about in their wetland habitats yelling out to each other, "Who's got spots?" "We do, we do!" But the tale is

based on an actual event. A North Carolina naturalist, a friend of the author, moved a spotted turtle to another wetland because it looked like the turtle's home was soon going to be destroyed by development. The turtle was missing a front right leg. Before it was relocated, over a mile-and-a-half away to another wetland, it was measured and photographed. The two wetlands were not interconnected and in between were all sorts of obstacles. Fallen logs from a massive clear cutting operation, thick undergrowth, a deep river, railroad tracks and fenced warehouses separated the sites so it was not a straight-line journey for Stormy. But 13 months later the book's author discovered the turtle back at its original site. The photographs confirmed, spot for spot, it was clearly the same individual. As it turned out, while golf course development proceeded adjacent to the small railroad-bordered wetland, the site itself was spared. The real life Stormy is again living at home.

Palmatier, the book's author, is a former Durham, North Carolina, elementary school teacher, and for the last 10 years was a science specialist for the school system. He is also a good naturalist, conducting his own field studies and teaching environmental education workshops at the North Carolina Botanical Gardens in Chapel Hill. Now retired, Bob has turned his attention to his writing and art. His sense of design and his knowledge of the natural world combine to create a contemporary fable. As a former public school teacher myself, I see this book as a good way to introduce young students to the basics of ecology and animal behavior. This is Palmatier's first book and he is currently working on a second: *Neddy Mittens: The Polydactyl Cat*. I should also mention the current book's lead character. Let's not forget that spotted turtles like Stormy commonly live to 50 years or more in age, and individuals exceeding a 100 years are not unheard of. A friend did a study where she found adult spotted turtles within yards of the same

place where they had been captured and marked 35 years previously; several she recaptured were ones first recorded as having missing limbs in the early 1970s.

The central three-legged character of the book was originally named “Stumpy,” both in real life by the person who first found him, and in earlier drafts of the book. It is interesting to see that political correctness can also apply to handicapped turtles.

All right, so this is a one-dimensional story with two-dimensional illustrations, so what’s the big deal? It is not the story, it’s the lessons. I suspect that a child can learn more from this little book than from an army of Toys“R”Us-purchased Transformers. I envision children venturing into the woods and discovering and remembering the newts and goldfinches they are first introduced to in this book. And they will giggle with joy when they see that real mud turtles actually do look like baked potatoes. The core values of persistence, the simple beauty of nature, the importance of small isolated wetlands and other natural habitats, and living well even with handicaps are clear. It’s juvenile fiction but it presents an important piece of information about turtles. **And** it’s one that most adults have yet to get. You can’t just indiscriminately move turtles about. Many turtles will spend every waking moment of what remains of their lives trying to find their way back home. For turtles, and other wildlife, there is no yellow-brick road. They follow built-in instinctive navigational systems, routing that takes them across roads, parking lots, over ridge tops, and interstate highways. In our asphalt dissected landscapes there are lots of dangers and few ever make it back home.

Now think of the annual 4th of July turtle races and the release of all the poor displaced creatures after the event is over. What happens to them? And the released pets, and turtles saved from roads and from development and moved to “better” locations. There are turtles released into the wild after being confiscated from commercial collectors with no thought as to where

they actually came from. And what about all the desert tortoises that the military continues to relocate to get them away from their training grounds. It’s all very well intended. Now people won’t need to wade through peer-reviewed literature looking for studies that show successful relocation of turtles is difficult. Skip all the big fourteen-cent science words, metric calculations, acronyms, statistical treatments, tables of data, literature reviews, and endless acknowledgments. Stormy drives home the message far better than scientific presentations at academic meetings, and the methods, research and discussions published in stuffy journals. For biologists it’s all about long term preservation of genetically viable populations; for children it’s more to the point—the importance of saving poor hapless creatures one individual at a time. Perhaps this book is the perfect teaching tool for bridging this gap; I personally know a number of research biologists who would benefit from reading it.

Animals don’t get up and move when their homes are destroyed for our developments. So many people assume that the displaced creatures just simply go elsewhere. And as the book teaches us, even small isolated woodlots, wetlands and meadows each have their value. Yeah, they are not vast enough to provide homes to bison and bears, but for many of the lesser creatures they can be so important. This is not about preserving nature for our great grandchildren to one day enjoy, it is more straightforward than that. It’s the right thing to do.

Maybe as more kids read this book it will be the children teaching their parents the simple truth that our native wildlife needs homes too. Perhaps we can start redeveloping lands we have already destroyed instead of expanding our sprawling empires into the homes of small shy turtles. Maybe because of books like this one there are actually some children out there who can see past their Game Boys and iPods and when asked “Who cares about the natural world?” laughingly cry out to us “We do, we do!”

What You Missed at the June Meeting

Ben Archer

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Photographs by Tlaloc Soria

My father was, for various selfish reasons, unable to attend the last meeting, and in order to preserve the honor of our family I have agreed to write this article in his place. Since I wasn't aware that I would be doing this, I took no notes during the meeting. This explains why I don't have last names for everyone. I take full responsibility for any errors in my recollections, even if it's totally my dad's fault for making me do this.

It's June and the CHS had its annual show-and-tell, and the scene at the Peggy Notebaert was fantastic. Half the people in the room had a lizard draped over their shoulder, pythons and boas were shifting around in their bags, and a sulcata looking for food and attention made several circles of the room, butting people in the leg until they let it by or fed it some greens. However the stars of the show weren't the reptiles, but rather the owners.

This has always been my favorite meeting because of the rare opportunity it gives people to really demonstrate their love for the hobby. Let's face it, not everyone thinks herps are as cool as we do. Some people think our amusing animal stories are boring, and don't want to check out the new turtle we just caught or watch us feed a pacman frog. There's a certain amount of frustration that builds up.

If you put a bunch of herp owners with their animals all in the same room, you can feel the excitement. It doesn't matter if they're keeping a garter snake they found in the backyard or an alligator they rescued, to them it's the coolest critter in the world and they're more than happy to tell you why. Instead of just harassing their friends and family they have an entire room full of people who are eager to listen and ask questions.

This was probably the best show-and-tell I've attended. Every speaker brought a different species and everyone did an amazing job of laying out the habits and particulars about their individual animal. We managed to squeeze seventeen people into our allotted time and I wish we'd had room for the four or five more who signed up. There was an outstanding mix of veterans and people who had just come for the first time.



Josh Chernoff managed raffle tickets and his cellphone at the same time.



Anna Sullivan with her rosy boa.

The kids' raffle went off without a hitch thanks to Jack Schoenfelder, and Josh Chernoff did his normal terrific job of conducting the adult raffle. Everyone managed to head home with a few items. An iguanarium from ZooMed was auctioned off after several rounds of bidding for a bargain price.

There were three young contributors who all did outstanding jobs. Anna Sullivan talked about her rosy boa and its habits in the wild while Cole McKinney showed off the crested gecko that he had picked up at SEWERFest two years ago and Isaiah



Cole McKinney with his crested gecko and his mom, Phyllis.



Dave Smiskol, with one of the two snapping turtles he brought.



Molly Carlson told about her three-toed box turtle (the iguana was just a hitchhiker).

Nicholls helped his dad Ryan show off their water dragon and ball python.

Danielle brought a western hog-nosed snake and touched off a discussion on how to obtain permits for threatened species. Bob Bavirsha added a reminder that an active CHS membership means you have several people ready to give references about your care and handling of animals when applying for a permit. Rachel showed off an ornate box turtle and reminded everyone that permits are now needed in Illinois to keep this species.

Matt O'Connor had a cautionary tale about mixing species in the same terrarium, relating the results of a battle between his golden treefrog and a gecko that resulted in the treefrog losing a

foot. Matt, who is a veterinarian, described how he was able to anesthetize the frog and amputate the badly damaged portion of its hind leg. He passed the frog around the room in a plastic tank. It's doing fine several months after the surgery.

Dave Smiskol showed off two of his common snapping turtles, one of which had lost its tail to a tankmate.

Several people brought really active animals. Rick Hoppenrath brought Warren, the previously mentioned sulcata who spent the evening in a determined quest to lap the room as many times as possible. Ron brought out a gorgeous 8' Burmese python that was continually on the move, but Ron still managed to remain upright, proving that he's stronger than I am, although that doesn't take much. And Josh put on a pair of gloves and brought out his ornery green tree python, proving that he's braver than I am, although again that doesn't take much. Dick bought Nessie the alligator. She is apparently carrying a batch of infertile eggs and beginning to act a little maternal. Finally, Bob Bavirsha managed to control his black-throated monitor long enough for us all to get a good look at it.

To round out the grab-bag of animals, we had Maggie M. bring out a Dumeril's boa, Owen Linback display his blue-tongued skink, and Jack show a beautiful panther chameleon. Molly Carlson presented her three-toed box turtle that she'd adopted from a horrible environment and was now thriving. And Jim stunned everyone present with a Puget Sound garter snake.

I'd like to thank everyone who showed up for making it a fantastic and informative meeting. It's always great to see people get excited and every speaker did a fantastic job. These meetings reinforce why I'm glad to be a member of the CHS.



Josh Chernoff was pretty sure his green tree python wouldn't bite, but was taking no chances..

Unofficial Minutes of the CHS Board Meeting, June 18, 2010

The meeting was called to order at 7:45 P.M. at the Schaumburg Public Library. Board members Rick Hoppenrath, Lawrence Huddleston, Deb Krohn and Jenny Vollman were absent.

Officers' Reports

Recording Secretary: Cindy Rampacek read the minutes of the April 16 board meeting, which were accepted as read.

Treasurer: Andy Malawy presented the financial report for the month of May.

Membership Secretary: Mike Dloogatch shared the list of non-renewed memberships to be removed from the mailing list; very few this month.

Publications Secretary: Aaron LaForge mentioned there were slight issues with the CHS forum. He will be setting up the speaker and show area of the web site so that there is a way for others to chip in.

Sergeant-at-arms: Dick Buchholz reported 52 attendees at the May general meeting.

Committee Reports

Shows (Jenny Vollman):

- Cosley Zoo, Wild at the Zoo, June 19.
- Peggy Notebaert Nature Museum Picnic, June 2.
- Argonne Labs Picnic, July 10. Rich Crowley will coordinate.
- SEWERfest, August 1, we will have a booth.

Adoptions: Linda Malawy has had some crazy calls this month—many people calling who do not know what they own.

Old Business

ReptileFest 2011: Dates are confirmed as April 9–10.

Outings: Picnic at Elawa went well; Jason Hood reported that this was the first CHS event for 3 of the participants. We are looking at a possible trip to the Mississippi River Museum. Cindy offered to plan a picnic on a Saturday in the late summer or early fall.

New Business

Steve Barten has offered to share photos to update the herps of Illinois section on the website.

We need to get back on track with the annual service awards. Our Sergeant-at-arms traditionally chairs this committee. Dick Buchholz will be getting with the members-at-large and arranging for the awards by the end of the year.

On the CHS forum, in the adoptions section, the Little Red Schoolhouse Nature Center is seeking donations of a variety of native animals.

We have funds in our restricted accounts for massasauga research and adoption expenses. Cindy Rampacek moved to authorize Bob Bavirsha to spend up to \$300 on a safe housing set-up for reptiles at Chicago Care and Animal Control. This

housing will offer security to the reptiles in their temporary care. Motion passed unanimously. Jason will contact Mike Dreslik to arrange the clearing of the massasauga fund.

A person who has been posting on our forum creates shirts and banners for a living and was interested in price matching our current suppliers. We will forward the information to Rick Hoppenrath.

Round Table

Cindy will not be at the July meeting as she will be on vacation. Someone else will need to take the minutes.

On her recent vacation Linda saw a dead snake that she could not identify.

Jason was proud of Linda with all the spider photos at the last meeting and he also has 7 cool male black-headed python babies.

Mike shared that we received a book, *A Death Decoded*, from the Grove. It deals with the mystery surrounding Robert Kennicott's death in Alaska in the 1800s. Mike plans putting it in the raffle.

Bob Bavirsha went on a wild goose chase for an alligator that supposedly attacked a fisherman.

Jim Foster will not be at the July meeting; he will be in New York.

Dick Buchholz and Mike Scott carpooled to Louisville, Kentucky, over the Memorial Day weekend. They did some herping en route, and came across an injured turtle. She was missing a large portion of her shell. Dick got in contact with Gery Herrmann to see if there was a chance of saving her. She is so far doing well with a fiberglass shell.

John mentioned that George Parsons at the Shedd Aquarium went out of his way to accommodate last month's CHS speaker, Dante Fenolio, in his desire to photograph certain marine invertebrates.

The meeting was adjourned at 9:30 P.M.

Respectfully submitted by recording secretary Cindy Rampacek



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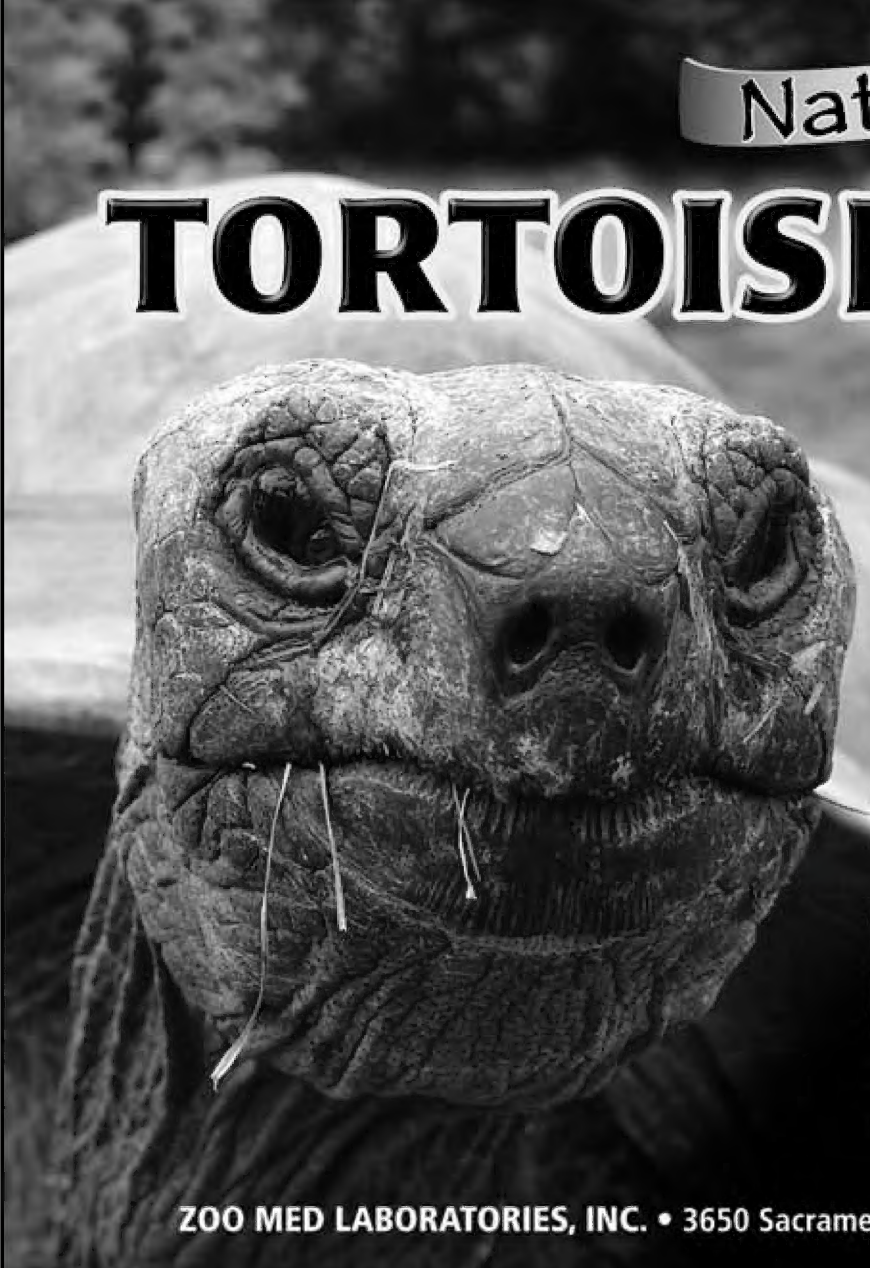
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UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, July 28, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Mike Pingleton**, of Champaign, Illinois, will speak about “Jewels in the Crown: Unique and Memorable Field Herping Experiences, and What Made Them So.” Mike is the author of *The Redfoot Manual: A Beginner’s Guide to the Redfoot Tortoise*, and is a field herper extraordinaire.

Speaking at the August 25 meeting will be field biologist and environmental educator **George L. Heinrich**, of St. Petersburg, Florida. His topic will be “Florida Turtles: Conservation Challenges and Opportunities.”

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago’s newest museum—the **Peggy Notebaert Nature Museum**. This beautiful building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the next board meeting, to be held at 7:30 P.M., August 13, in the adult meeting room on the second floor of the Schaumburg Township District Library, 130 S. Roselle Road, Schaumburg.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info visit the CTC website: <http://chicagoturtle.org/>.

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